

LISTING OF THE CLAIMS:

1. (Cancelled)
2. (Currently amended) A data recording method for repeatedly recording data on a rewritable recording medium, comprising the steps of:

data-converting data to be updated and recorded on a recorded area on the recording medium to form different data-converted data, by superposing thereon information generated on the basis of data conversion information for every updating; and

recording data conversion information and the different data-converted data on the recording medium.
3. (Cancelled)
4. (Currently amended) A data recording method according to claim [[3]] 2, wherein said data conversion information comprises an initial value ~~generates~~ generated as a different pseudo-random number for every updating.
5. (Original) A data recording method according to claim 2, wherein additional information is embedded in a part of said data conversion information.
6. (Original) A data recording method according to claim 5, wherein in case a part of said data is rewritten, said additional information embedded in the data conversion information is made the same as before the rewriting.

7. (Cancelled)

8. (Original) A data recording method according to claim 2, wherein said data-converted data is recorded in the vicinity of the recording position in which said data conversion information is recorded on said recording medium.

9. (Currently amended) A data recording method for recording data on a recording medium which can be rewritten multiple times, comprising the steps of:

ordering the signal processing of data to be recorded on the recording medium in response to a received recording instruction;

adding error correction data to the data in response to the order;

generating different data conversion information to be updated and recorded on a recorded area on the recording medium every updating;

data-converting the data ~~thus~~ with the error correction data added ~~thereto~~ thereto by superposing thereon information generated on the basis of the different data conversion information;

modulating the converted data thus data-converted and the different data conversion information;

recording the different data conversion information to the recording medium; and

recording the converted data to a vicinity of a recording position in which the different data conversion information was recorded.

10. (Cancelled)

11. (Original) A data recording method according to claim 9, wherein additional information is embedded in a part of said data conversion information.

12. (Cancelled)

13. (Currently amended) A data reproducing method for reproducing from a recording medium, in which data conversion information and converted data are recorded, wherein said converted data is data-converted by having superposed thereon information generated on the basis of the data conversion information, said method comprising the steps of:

generating different data conversion information to be updated and recorded on a recorded area on the recorded medium every updating of data recorded on the medium;

reading the data conversion information from the medium;

generating information on the basis of the read data conversion information;

restoring the converted data back from the medium to pre-conversion data as before the data-conversion occurred, using the read data conversion information and the generated information; and

reproducing the pre-conversion data.

14. (Cancelled)

15 (Original) A data reproducing method according to claim 13, wherein additional information is embedded in a part of said data conversion information.

16. (Currently amended) A data reproducing method according to claim 15, ~~further comprising the steps of detecting the additional information and controlling~~ wherein in case a part of said additional information concerns copy control, the reproduction of the pre-conversion data is controlled on the basis of the ~~detecting result~~ additional information.

17. (Currently amended) A data reproducing method according to claim 16, wherein the ~~detection~~ additional information is ~~carried out~~ detected a plurality of times and the reproduction of said pre-conversion data is controlled on the basis of those detection results.

18. (Original) A data reproducing method according to claim 17, wherein the detection is carried out for each of a plurality of pieces of additional information and the reproduction of said pre-conversion data is controlled on the basis of the results of detecting those pieces of additional information.

19 (Cancelled)

20. (Currently amended) A data recording apparatus for recording data on a rewritable recording medium, comprising:

a ~~converter~~ converter for ~~data-converting data to be recorded on the recording medium by~~ generating different data conversion information to be updated and recorded on a recorded area on the recording medium every updating, and superposing thereon information generated on the basis of the data conversion information on data to be updated and recorded so as to produce data-converted data; and

a laser pickup for recording the data conversion information and the data-converted data on the recording medium.

21. (Previously presented) A data recording apparatus according to claim 20, wherein said converter superposes on the data to be recorded other data having no correlation with the data to be recorded and thereby converts the data to be recorded into different data every recording operation.

22. (Cancelled)

23. (Currently amended) A data recording apparatus according to claim [22] 20, wherein said ~~initial-value~~ converter generates a pseudo-random number as an initial value of the data conversion information every updating.

24. (Original) A data recording apparatus according to claim 20, wherein additional information is embedded in a part of said data conversion information.

25. (Original) A data recording apparatus according to claim 24, wherein in case said data is rewritten in part, said additional information embedded in the data conversion information is made the same as before the rewriting.

26. (Cancelled)

27. (Currently amended) A data recording apparatus for recording data on a recording medium which is rewritable multiple times, comprising:

a microprocessor for ordering the signal processing of data to be recorded on the recording medium in response to a received recording instruction;

a signal-processing circuit for, in response to the order, adding error correction data to the data, generating different data conversion information to be updated and recorded on a recorded area on the recording medium every updating, data-converting the data ~~thus added to~~ by superposing thereon error correction information generated on the basis of the data conversion information, and modulating the converted data thus data-converted;

a laser generating source for generating a recording laser;

a laser pickup for irradiating the generated recording laser at the recording medium; and

a servo for controlling the laser pickup to record the data conversion information and the converted data on the recording medium.

28. (Cancelled)

29. (Original) A data recording apparatus according to claim 27, wherein additional information is embedded in a part of said data conversion information.

30. (Cancelled)

31. (Currently amended) A data reproducing apparatus for, generating different data conversion information to be updated and recorded on a recorded area on the recorded medium every updating, and reproducing from a recording medium in which data conversion information

and converted data are recorded, said converted data data-converted by having superposed thereon information generated on the basis of the data conversion information, the apparatus comprising:

a laser pickup for reading the data conversion information and the converted data;

a signal-processing circuit for using the read data conversion information and the information generated on the basis of the data conversion information to restore the converted data to pre-conversion data as before the data-conversion occurred; and

a reproducing apparatus for reproducing the pre-conversion data.

32. (Cancelled)

33. (Original) A data reproducing apparatus according to claim 31, wherein additional information is embedded in a part of said data conversion information.

34. (Original) A data reproducing apparatus according to claim 33, wherein said additional information is detected by a detector and the reproduction of the pre-conversion data is controlled on the basis of the detection result.

35. (Original) A data reproducing apparatus according to claim 34, wherein the detection is carried out a plurality of times and the reproduction of said pre-conversion data is controlled on the basis of those detection results.

36. (Original) A data reproducing apparatus according to claim 35, wherein the detection is carried out for each of a plurality of pieces of additional information and the

reproduction of said pre-conversion data is controlled on the basis of the results of detecting those pieces of additional information.

37. (Cancelled)

38. (Withdrawn) A data recording method for use with a rewritable recording medium, comprising the steps of:

comparing first data already recorded in a write position on the recording medium with second data to be newly written to the same write position, on data writing; and

writing the second data to the write position in case the result of the comparison is that the first data and the second data include different data.

39. (Withdrawn) A data recording method for use with a rewritable recording medium, wherein in case writing data of management information to be recorded to a position on the recording medium includes first data which is the same as at least parts of second data already written in the position on the recording medium, the writing data is not recorded with respect to the parts where the first and second data are the same.

40. (Withdrawn) A data recording apparatus for recording data on a rewritable recording medium, wherein management information of writing data to be recorded on the recording medium is temporarily stored in a memory and not written to the recording medium until the recording medium is to be removed from the apparatus.

41. (Withdrawn) A data recording apparatus comprising:
means for recording data on a rewritable recording medium; and
means for generating first data by superposing known data on management information of writing data to be recorded on the recording medium, wherein the first data is recorded as different management information data on every recording operation.

42. (Withdrawn) A data recording apparatus for use with a rewritable recording medium, wherein on data writing first data already recorded in a writing position on the recording medium and second data to be newly written to the writing position are compared and in case the first data and the second data include different data, the second data is written to the writing position.

43. (Withdrawn) a data reproducing apparatus for reproducing data from a recording medium on which data converted to a predetermined format has been recorded, comprising first output means for, in case a known data series is detected from data having undergone a reverse-conversion of the format, deeming the data series to be invalid data and not outputting the invalid data as reproduction data, and second output means for outputting a flag indicating that the data is invalid.

44. (New) A data recording method for recording data over data previously written on a recorded area of a rewritable recording medium, comprising:

data-converting data to be recorded on the recorded area, using data conversion information different from data conversion information previously applied to produce the data

previously written on the recorded area, so as to produce data-converted data different from the data previously written on the recorded area;

recording the different data-converted data on the recorded area of the rewritable recording medium; and

recording the different data conversion information on the rewritable recording medium.